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WRITERS' CRAMP, OR SCRIVENERS' PALSY.

BY REUBEN A. VANCE, M.D., NEW YORK.

[Concluded from p. 265.]

THE cause of writers' cramp cannot, in all cases, be definitely determined. That it occurs generally in men, and in those men who write much and have done so for a length of time, is so striking a fact, that in almost all systematic accounts of the disease, we find that the male sex, middle age and occupation are treated of as the causes of this affection. When we consider the immense number who write, and the small proportion who suffer from writers' cramp; the multitude who pursue this practice to excess and the comparative infrequency with which such persons are attacked; and the occasional occurrence of the disease among those who write but little, and the frequent development of an affection pathologically similar among those who pursue different vocations, disabling them for the performance of habitual and acquired acts, other and more potent factors than the accidents of age and sex would seem to be indicated. Hereditary predisposition in this, as in most other nervous diseases, plays an important part, and it is to be regretted that it is as yet impossible to arrive at its exact influence, from the comparative rarity of the disease, and the difficulty of acquiring exact information on this point. Yet it is not assuming too much to say that when sufficient data are obtained it will doubtless be found that any form of nervous affection in the ancestor will render the descendant more liable to the development of writers' cramp, in the same manner that a similar descent increases the probabilities of the occurrence of any other form of cerebro-spinal disease.

The most potent cause is undoubtedly over-exertion in writing. While it is certainly true that some individuals develope the disease from an amount of special exertion that appears trivial, yet such fact must not be taken as negativing the effect of the habitual performance of these restricted movements, the derangement of which constitutes the essential element of the disease. It only shows that the susceptibility of different people varies—that while in some cases no amount of exertion can bring on the disease, yet in others it may be developed by an amount of exertion comparatively insignificant.

The varying element of hereditary predisposition, in the one case strong, and in the other slight, can alone account for this discrepancy.

No difficulty need be experienced in determining the existence of writers' cramp in a given case, and in discriminating between it and the other affections, which, by implicating similar parts, might, by chance, be confounded with it. *Progressive muscular atrophy* attacks the muscles of the thumb, and in its progress may so deform and disable the hand as to implicate the power of writing; yet the course of the disease, the characteristic fibrillary contractions, and the wasting of the muscles are diagnostic points which will in all cases prevent error. Again, in *progressive muscular atrophy*, the loss of power is experienced in attempting to perform any and all acts, and is proportionate to the distinction of the muscles involved; in writers' cramp, the difficulty is confined to the execution of the one act of writing, while the muscular power is unimpaired and any other act or series of acts can be performed as well as ever. *Lead paralysis* is marked by such characteristic signs that it need never be confounded with it. The implication of both hands, the existence of paralysis and the absence of spasm, are sufficiently characteristic. The blue line on the gums which saturnine poisoning produces, the absence of contractility when the induced current of electricity is directed through the affected muscles, and the history of the case, are sufficiently distinctive of *lead paralysis* to prevent any difficulty in diagnosis. The peculiar characteristics of writers' cramp differ so widely from the symptoms of any form of local paralysis, that no error in diagnosis need be apprehended by any one familiar with the disease.

As morbid anatomy furnishes us no data from which to judge of the pathology of this disease, we shall have to resort to physiology. A consideration of the processes by which certain habitual acts and acquired powers are originally attained, will aid us in forming a conception of the manner in which disease operates to disorder them, and will enable us to judge, with some degree of accuracy, of the situation and character of the morbid process which causes the phenomena of writers' cramp.

The earliest actions of the human infant are simply reflex to impressions. The stimulus applied to the sensitive nerves is conducted to the spinal cord, excites the grey matter, and a certain amount of force is liberated; this force then passes through the motor nerves distributed to the contractile tissues near the part where the original impression was made, and the final result is a local muscular movement. Should the original stimulus be of a greater degree of intensity, it may affect additional centres in the spinal cord, and excite general bodily movements, or it may, in addition, pass to the supreme centres and present itself in consciousness. In such cases, the respondent effects will vary with the pleasurable or painful character of the ideas and feelings then induced. In the one case, the child manifests approbation, and in the other, it seeks by cries

and struggles to escape from what is unpleasant. With the progressive development of the nervous system, various coördinated actions, such as crawling and walking, are attempted, and become more perfect in their operation with practice. In similar manner, as years advance, the child learns to walk, to talk and to write; its first efforts being faulty and tedious, but finally the faculties becoming automatic.

The stimulus, which in the infant may be unconscious, and manifest itself in simple reflex action, does not vanish issueless, but by exciting the activity and evolving the force of the spinal centres, necessitates a renewal of such expenditure, which is executed by the process of nutrition, and of necessity is of the nature of the force discharged. In this manner the lines of nervous transmission from the periphery through the sensitive nerves to the vesicular matter of the cord, and from thence through the motor nerves to the muscles, is rendered more easy and expeditious by each repetition. The extension of the excitation to neighboring cells, and ultimately to the sensori-motor and ideational centres, opens up channels of communication along which the passage of nervous changes becomes more frequent and easy with the increased activity and greater experience of the child.

The complex character of many of our unconscious or automatic movements can only be appreciated by analyzing certain of them. To the skilful penman, nothing is more easy and natural than writing, yet for the proper mechanical performance of the act, many different parts of the animal economy are called into activity. The sensitive surfaces of the fingers and hand must be intact, the nerve fibres connecting them with the cord, and the ascending fibres which establish relations between the spinal centres and the sensori-motor and ideational centres, must be in a condition to perform their functions. The volitional impulses must be guided and controlled by the impressions received through the sense of sight, and the spinal cord must possess a reserve force of acquired power to be set in action by the will. The condition of the muscles, their position and degree of tension from moment to moment, is an essential element, as also the integrity of the nerves which excite them to contraction, and the fibres which connect the motor nuclei of the cord with the intra-cranial organs. If the muscles are inflamed, contraction is impossible; if they are wasted, movement is impaired; if the motor nerve is disordered, paralysis is present; if the skin is diseased, sensation is perverted; if the sensitive nerve is not intact, impressions are not transmitted; and if communication between the spinal and supreme centres is interrupted, motion and sensation are in abeyance. The channels through which the volitional impulses and visual impressions reach the spinal centres, must be uninterrupted, and these latter must be the reservoirs of accumulated power, the result of previous education, in such condition as to respond regularly and promptly to cerebral stimuli.

In writers' cramp the motory and sensory endowments are intact, the nervous communication between the sensitive surfaces and muscular tissues of the arm and hand, and the spinal centres, is uninterrupted, as is also that between the spinal centres and visual and intellectual organs. Coördinated movements of every degree of complexity, and of all varieties, except those necessary for the act of writing, can be performed as readily as ever, but when the attempt is made to execute the latter, the result is a series of irregular and painful spasmodic muscular contractions.

While the volitional impulses seem to be unimpeded in their action upon the spinal centres in which exist the stored-up activity of all other acquired movements, yet some derangement has ensued in the vesicular matter, the excitement of which is essential to the act of writing. Some change in the spinal centres has so altered their texture and vital endowments, that instead of responding to the cerebral stimuli by definite and regular movements, their activity is expressed by irregular and spasmodic contractions. The amount of muscular force expended in the attempt to write is much greater than in health, but it is uncontrolled, and the resulting actions are not properly coördinated.

When there is functional derangement of any part of the nervous system without sufficient structural change to be discovered after death by our present means of examination, there is, as a general rule, during life, some alteration in the nutritive relations of the part, which is attended by derangement of the local circulation. The bloodvessels, from the constant demand for blood to supply the rapid changes incident to the prolonged activity of the part, are kept in a state of over-distention, their muscular walls become paralyzed, and the alternation of rest and activity which results from their contraction during sleep, and dilatation during wakefulness, is interfered with. As a consequence, the part is constantly excited by an excessive supply of blood, and nutritive repair does not ensue, and instead of the increased activity producing a greater development of power, as it does in health, the local congestion induces a state of abnormal irritability which results in perverted functional activity. The phenomena of writers' cramp when considered from this point of view seem to indicate that in an altered activity of certain spinal centres, in which changes in the local circulation is an important factor, we have the true pathology of the disease so far as can be determined at present.

For the successful treatment of a case of writers' cramp it is absolutely requisite that the patient should abstain from all attempts to write. Should this be done early in the disease it will occasionally be sufficient of itself to effect a cure. This is illustrated in two of the cases I have enumerated. Yet in others no amount of rest, unless conjoined with other measures, will prove efficacious. Case 3 exemplifies this fact. I was induced to employ atropia from a

consideration of the pathological characters of the disease. Prolonged over-exertion of the special function of a part, tending, as it does, to produce a state of erythism with or without vascular congestion, needs for its relief the administration of a remedy whose physiological operation is to suspend the abnormal activity, and place the affected part in a state of rest. Atropia has been shown to possess this property in affections of the spinal cord, and with that idea in view, it was administered in these cases of writers' cramp.

Of the seven cases I have alluded to, two were not under my care, and in one, treatment has just been commenced, and its result cannot yet be determined. In three of the remaining four cases the hypodermic injection of atropia was the sole remedy employed, and in the other, atropia, at first alone, but subsequently conjoined with strychnia, was used in the same manner. One case passed from under observation after the third injection, and was probably not benefitted; another, after six months' treatment, was greatly improved; and the other two cases have had no return of the disease since treatment was suspended.

The best place in which to inject the remedy is beneath the skin in the loose cellular tissue over the pronator muscles of the forearm. Either extremity can be used, but when the treatment is to be continued for a length of time, it is better to inject in each arm alternately. The hypodermic syringe should be small, and armed with a gold pointed needle. The solution of atropia should be concentrated so that but a small amount of liquid need be injected at a time. The following is a convenient formula:

℞ Atropiæ sulphat., gr. j.;
Acid. sulph. dil., q. s.;
Aquæ ad. ʒj.;

M. Dose, one minim.

The injections should be administered about three times a week, and when attention is paid to the cleanliness of the needle and the due concentration and freshness of the solution, no danger of producing abscesses need be feared, if the operation is performed with a reasonable degree of dexterity.

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INFANTILE UTERINE HÆMORRHAGE.

Read before the Middlesex East District Medical Society, Nov. 12th, 1872.

By HOWLAND HOLMES, M.D., of Lexington.

ON June 25th, 1872, I delivered Mrs. M. W. of a healthy female infant weighing 8¼ pounds. The father and mother were both people in good health, and there was nothing unusual in the labor of the mother, or in the condition of the infant till the fifth day, when the nurse noticed blood upon the diaper, and, on examination, found it came from the vulva. This had continued for two days when my

attention was called to it, and, as the case was a novel one to me, I took particular pains to satisfy myself that blood was still flowing from the vagina, some clots being at that time between the labia. The hæmorrhage covered a period of about three days, and varied in quantity (as nearly as I could ascertain) from one to three drachms each twenty-four hours. In the meantime, both the child and its mother seemed to be progressing well, and both are in good health to-day (Nov. 12th, 1872), no subsequent hæmorrhage having occurred.

On Sept. 9th, 1872, I delivered Mrs. J. B. of a healthy female infant weighing 8 pounds. She was a primipara, like the preceding. The mother is a very healthy French Canadian, and the father as healthy a Scotchman. On the fifth day from delivery, the infant was found to have one large and several small clots of blood about the vulva, and, on examination, it was found to be still flowing from the vagina. On the seventh day, my attention was called to it. The child, in the meantime, had nursed and was thriving well, and at this time was strong and in good condition, with the exception of a cold taken on that day, which was cold and wet, in a ride of eighteen miles to get christened.

I am not aware that in my practice, covering a quarter of a century, I have met with any similar cases, and therefore report them for their novelty rather than from any important pathological considerations, for, as the first child recovered finely from a judicious forbearance from active treatment, I adopted a similar course with the second, which resulted equally as favorably. The amount of blood discharged in this case did not differ materially from the preceding, terminating, like the former, the third day from its first appearance, and there has been no repetition up to this time (Nov. 12th, 1872).

The most of you doubtless remember the remarkable case reported some months since in the *American Practitioner*, by Dr. R. P. Erwin, of Prairie Bluff, Alabama, of a "discharge of blood from the uterus of an infant, commencing when it was a month old, lasting from four to six days, recurring every twenty-eight days, and this strange phenomenon continued until the infant was eighteen months of age; it then ceased, and has not reappeared. The child is now three years old, its parents are healthy, and it has always been perfectly well."

INFANT MORTALITY IN ENGLAND.—On the occasion of opening a new hospital for children at Pendlebury (Eng.), the Bishop of Manchester gave some curious statistics on this subject. In the North of England only 7 per cent. of children under one year die annually; whereas in Manchester and Liverpool nearly 28 per cent., or nearly four times that number, die in the same period. Out of 41,805 deaths in Manchester in four years—1868 to 1871 inclusive—the number of deaths of children under five years was 20,025, or 48 per cent. "It was not," adds the Bishop, "for him to say, what he was not competent to say, to what extent—by the exercise of the powers entrusted to the municipal authorities of closing houses that were positively unfitted for human habitation—that infant mortality might be mitigated."

Progress in Medicine.

REPORT ON THERAPEUTICS.*

By R. T. Edes, M. D. Harv.

Carbolic Acid as a Local Anæsthetic.—Ollier, of Lyons *(Bull. Gén. de Thérapeutique,* 1872, Juillet ; *Centralblatt,* 1873, p. 672), relates two cases of gangrene from the application of carbolic acid. In the first case, the finger of a girl, aged 13, who had a splinter under the nail, was dipped in the acid, and then enveloped in a compress wet with the same solution. At the end of eight days, the finger was entirely gangrenous above the middle of the second phalanx. He then experimented on rabbits and fowls. The first animals, whose limbs were plunged in concentrated carbolic acid for from three to five minutes, died of poisoning in a few hours. Those who survived had gangrene. In order to prevent the poisoning, a ligature was placed around the limb previous to immersion. Five minutes of immersion then sufficed to produce death of the part.

Ollier thought that he might be able in this way to amputate fingers and toes without danger or pain, but an attempt upon the great toe failed, on account of the thickness of the epidermis.

Dr. Bill, of the U. S. Army *(Am. Jour. Med. Sci. ; Boston Med. and Surg. Jour.,* Dec. 1, 1870), found carbolic acid a powerful local anæsthetic. He was able to cut down upon his own radial artery without pain, and performed several operations of similar character.

A. H. Smith *(Medical and Surgical Reporter,* 1872, p. 535) obtained similar results.

Carbolic Acid and other Antiseptics.—Wilde *(Deutsches Archiv f. Klin. Med.,* 1872, x., 55–69 ; *Centralblatt,* 1872, p. 558) communicates several cases of traumatic erysipelas in which he had very favorable results from the subcutaneous injection of sulpho-carbolate of soda. In three or four places, at the borders of the erysipelatous parts, injections were daily made with a solution of one to twelve of the amorphous salt (Schering's), after which the erysipelas disappeared on the third or fourth day.

Zapolsky *(Hoppe-Seyler's Medicinisch. Chem. Untersuchungen,* 1871) examined the effect of carbolic acid on various fermentations. Solutions of albuminous bodies are precipitated by carbolic acid only when the solutions of the latter are almost concentrated, and the reaction of the fluid neither very acid nor alkaline. Carbolic acid does not prevent the action of emulsin nor amygdalin, nor that of diastase nor of the saliva upon starch.

It hinders digestion of fibrin by pepsin the more strongly the stronger the solution ; and, if carbolic acid is present in sufficient quantity, entirely stops it. In order entirely to prevent digestion, however, it appears necessary that the fluid present should consist of at least fifty per cent. of carbolic acid.

Hoppe-Seyler *(op. cit.)* concludes that the destruction of the inferior organisms (infusoria) accompanying putrefaction may be accomplished by a small quantity of carbolic acid, but that fermentations

* Second semi-annual Report.

can be prevented only by a much larger quantity. In order to be perfectly sure that no inferior organisms can live in a fluid, it must contain at least one per cent. of crystallized carbolic acid. Even if putrefaction goes on slowly at this grade of concentration, yet all living organisms in such a fluid become motionless. At a strength of more than two per cent., the putrefaction also comes to a standstill, and the ferments appear to be gradually precipitated. Solutions for surgical dressings should be of at least this strength.

Hoppe-Seyler thinks that in rules for disinfection, sufficient attention is not paid to the purification of the air in vaults, &c. He considers sulphurous acid especially applicable to this purpose, and he also recommends it, on the ground of experiment, for disinfecting bread-rooms and (army) bread-wagons. It is, of course, obtained with great ease by the burning of sulphur. Sulphurous acid is, usually, only casually mentioned in rules for disinfection, but Hoppe-Seyler would assign it the chief rank as compared with chloride of lime or carbolic acid for fluids.

Jüdell (*Hoppe-Seyler's Medicinisch. Chem. Untersuchungen*, 1868) determined that one-fourth of one per cent., by volume, of sulphurous acid is capable of destroying the life of the yeast plant in a short time, while the color of various cloths was not destroyed in twenty-four hours by one-half of one per cent., by volume. It would seem, from this, that, if infection germs possess as much sensitiveness to sulphurous acid as the yeast plant (and with carbolic acid they possess much greater), an amount of sulphurous acid may be generated in a room sufficient to completely disinfect it without bleaching the clothing and furniture.

Rabuteau and Papillon (*Comptes Rendus*, 1872, lxxv.; *Centralblatt*, 1872, p. 864) have examined the action of silicate of soda on various fermentative processes, and conclude that this salt, in two per cent. solution, prevents the alcoholic and lactic fermentations, decomposition of urea into carbonate of ammonia, and the action of emulsin or amygdalin, or delays them in a more dilute solution. The action of the silicate is more energetic than that of the borate, and the experimenters see in this fact a confirmation of the proposition stated by Rabuteau, that simple bodies are the more active the higher their atomic weight.

Roth (*Deutsche Klinik*, 1872, Nos. 40 and 42; *Centralblatt*, 1872, p. 752) supposes that he protected many persons, during an epidemic, from everything but the most insignificant attack of smallpox, by the use of one half to one dessert-spoonful of aromatic or common vinegar. Would not an "acetum sarraceniæ purpureæ cum xylolo," as combining several specifics, be a good thing?

Quinia and its Substitutes.—Briquet (*Bulletin de l'Acad. de Méd.*, 1872, No. 33; *Centralblatt*, 1872, p. 880) recommends the use of sulphate of cinchonia instead of the sulphate of quinia, for the sake of its cheapness. The cinchonia is twice as abundantly contained in the brown and red cinchona barks as the quinia. He showed, by experiments upon animals and by statistics, that cinchonia does not essentially differ in the symptoms produced, and in therapeutic effects obtained, from quinia. Its taste is far less bitter. He does not state distinctly what he supposes the ratio of the dose of the two alkaloids producing equal therapeutic effects may be, although he mentions sixtenths to one gramme (nine to fifteen grains) as the quantity to be

given, in divided doses, before an expected chill. This is far from a very large dose of quinia; and it would seem that he considers the doses to be nearly the same. The proper dose of cinchonia is often stated as from one and a half times to twice that of quinia.

Mosler (*Deutsches Archiv f. Klin. Med.*, x., 159, 165; *Centralblatt*, 1872, p. 574) determined, by measurement, that eucalyptus globulus (tincture or alcoholic and watery extract, subcutaneously or by the mouth) caused contraction of the spleen. He recommends it as a substitute for quinia in the treatment of enlargement of that organ.

Dujardin Beaumetz (*Gazette Médicale*, 1872, Nos. 37, 38, 39; *Centralblatt*, 1872, p. 782) reports six cases of intermittent fever treated successfully by picrate of ammonia. The smallest successful dose was five centigrammes (eight-tenths of a grain) in five days; the largest, given in a case of tertian, twenty-four centigrammes (three and a half grains) in five days. The daily dose never exceeded six centigrammes. In all cases, permanent cure occurred after four to eight days. Attacks were not immediately cut short, with exception of the tertian. Yellow coloration of skin, prickling, disturbance of digestion, abnormal symptoms on the part of nervous centres, did not occur. The size of the spleen was not diminished. The number of cases is not large enough, nor the results decisive enough, to establish picrate of ammonia as a substitute for quinia. Picric acid and its salts have often been recommended and used before. It is well known that many mild cases of intermittent, especially in regions where the malady does not originate, yield to various drugs of little power.

Ergot.—Hildebrandt (*Berliner Klin. Wochenschrift*, 1872, No. 25; *Centralblatt*, 1872, p. 591) treated nine cases of intra-uterine tumors with subcutaneous injections of a solution of ergotin in glycerine. The most troublesome symptoms disappeared quite soon, and, after longer treatment, the tumors themselves diminished. Four times, the diminution of the fibro-myoma was determined beyond a doubt, and once it entirely disappeared. He supposes that the nutrition of the tumor is interfered with, both by a contraction of the vessels supplying it with blood, and also by the general compression it experiences from the surrounding walls of the uterus. The disadvantages of this method of treatment seem to be pain and local hardening at the points of injection.

Drasche (*Wiener Med. Wochenschrift*, 1872, Nos. 37–40; *Centralblatt*, 1872, p. 896) states that beside the hæmostatic effect of injections of ergotine, there may be observed an immediate lowering of the frequency of the pulse by five or six beats, and an increase of temperature by some tenths. From sphygmographic traces, he infers narrowing of the vessels.

Apomorphia.—Quehl (*Centralblatt*, 1872, 685) obtained from small doses of apomorphia nearly the same results as have before been stated (see JOURNAL, Sept. 26th, 1872). The preparation used by him did not, however, lose its activity so rapidly as other authors have found it to do.

After two decigrammes (about three grains), a poisonous dose, no vomiting took place, but stupor, diminution of reflex excitability, paresis of posterior extremities, continuous *mouvements de manège*. Death never took place with this dose, and the nutrition seemed to suffer scarcely at all.

In a dog which died after three decigrammes, a marked circumscribed hyperæmia of the *pons Varolii* and the neighboring parts of the

base of the brain was the only lesion observed. Vomiting, either from small or large doses, may be prevented by section of the pneumogastrics. (This fact has been denied by Riegel.)

Loeb (*Berliner Klin. Wochenschrift*, 1872, 400; *Centralblatt*, 1872, p. 720) has used apomorphia as an emetic in his practice. In a case of poisoning by oil of bitter almonds, he found it very useful, administered subcutaneously, in the dose of eight milligrammes (one-eighth of a grain). Some individuals, however, are met with who are not sensitive even to larger doses. Alarming syncope or collapse appears to be occasionally encountered, especially in children. He has seen no abscesses formed at the place of injection, but enduring and painful indurations.

Chloral and Strychnia.—Oré (*Gazette des Hôpitaux*, 1872, Nos. 103 and 104; *Centralblatt*, 1872, p. 848) was able to produce complete anæsthesia in dogs by the direct injection into the veins, of fifteen to thirty grains of chloral. The pulse increases in frequency and becomes irregular, and in five minutes at most the animal appears lifeless, with the exception of certain reflex movements. The larger the dose, the more rapid the onset of the symptoms. Strychnia being given at the same time, in a dose somewhat but not too much exceeding the fatal, he succeeded in one case in saving the animal. If the dose were too large, life was prolonged for some hours. On these grounds, he recommends the injection of chloral into the veins in cases of tetanus.

He does not, however (*Journal Anat. and Phys.*, Nov., 1872), find that strychnia is an antidote for chloral, although it postpones the fatal result in some instances.

Turner (*Med. and Surg. Reporter*, xxvi., 1872, p. 529; *Centralblatt*, 1872, p. 560) reports the case of an Indian, who took something bitter in his food, and soon after was attacked with spasms, chiefly of an opisthotonic character. He gave thirty grains of chloral at the first attack after seeing him, and seventy-five grains in about an hour and a half. The spasms then ceased for several hours, and thirty grains were again given, after which there was no return of the cramps, and the patient recovered completely.

Fergusson (*Edinburgh Medical Journal*, July, 1872; *Centralblatt*, 1872, p. 624) reports a case of traumatic tetanus successfully treated by one hundred and eight grains of hydrate of chloral and sixty-eight grains of bromide of potassium, per diem, in three doses. This was continued for four weeks. The tetanus was cured before its probable cause, a small sequestrum in the cicatricial tissue of a stump, was discovered and removed.

Lactic Acid.—Dr. Ogle (*Medical Times and Gazette*, 1872, ii., 1156; *Centralblatt*, 1872, p. 607) has treated two cases of diabetes with lactic acid without benefit. (Compare report on lactic acid in this JOURNAL, 1872, Sept. 19th.)

Hydrotherapeutics.—Riegel (*Deutsches Archiv f. Klin. Med.*, 1872, x., p. 515–530; *Centralblatt*, 1872, p. 879) recommends local absorption of heat in typhoid by means of ice-bags to the back and on the abdomen. He says this method is more agreeable and less troublesome to the patients, and diminishes the average daily temperature in the axilla, more than full baths of 66° temperature and ten minutes duration every two hours.

(To be concluded.)

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.
W. L. RICHARDSON, M.D., SECRETARY.

May 11th, 1872.—The President, Dr. Read, in the chair.

Purpura Hæmorrhagica in a New-born Child.—Dr. Sinclair said that four weeks since, he was called to a case of labor which was completed in twenty-eight hours. The next day, black and blue spots appeared on the left shoulder and under the arm of the child, and there were a few small, extravasated spots on the legs, which were soon followed by others. Later, hæmorrhage began from the groins; the next day, from the navel. By the free use of styptics, the hæmorrhage was arrested, but returned the next day from the groins, and ecchymoses appeared on the body. Discharges of blood also took place from the bowels. At birth, the child had appeared well nourished. There was no jaundice noticed in the case. Death took place on the fifth day.

Pelvic Cellulitis.—Dr. Curtis reported the following case of pelvic cellulitis.

E. S., aged 28, was admitted to the City Hospital June 23, 1871. She had been married ten years. Soon after her marriage, according to her own report, she contracted a disease from her husband. She subsequently had four dead children. Six weeks before entrance, she aborted, during sleep, of a 3½ months fœtus. She flowed for a month, at the end of which time the placenta was expelled. About ten days later, she began to have pains in her left side, just above Poupart's ligament.

At the time of her entrance to the hospital, she was unable to make complete extension of the left knee. The catamenia were regular.

An examination showed an old rupture of the perineum. The cervix was turned back towards the sacrum, and was large, broad and tender. The uterus was fixed. The abdomen was prominent with adipose tissue. Tenderness slight in the right lumbar, and considerable in the left inguinal region. A firm, inelastic swelling, tender on pressure, was felt in the left inguinal region. The uterus was anteflexed in anterior and right *cul-de-sacs.* Some fulness existed in the left *cul-de-sac;* pain on pressure. In walking, the patient favors the left leg.

July 12.—Vomiting freely. Catamenia present, lasting till 17th.

July 18.—Considerable tenderness on left side of the abdomen, as high as a line drawn from navel to superior spine of ilium, with fulness and resistance on pressure more marked than heretofore. Pressure on crest of the ilium gives considerable pain. In the left lateral and posterior *cul-de-sac,* a deep-seated, tender mass was detected. In the rectum, an ill-defined and very tender mass was felt lying to the left of the uterus.

During the next three weeks the tenderness and fulness increased, accompanied by severe pain, vomiting and diarrhœa.

August 18.—The local swelling in the left groin seemed to be increasing.

August 21.—Fluctuation was evident in the left groin. The diarrhœa still continued at times. No pus was discharged.

August 24.—The groin was lanced by Dr. Blake, the incision being

followed by a rapid, noisy discharge of fœtid gas and a pint of fœtid pus. In the evening, half a pint more was discharged.

From this date, the abscess continued to discharge. The diarrhœa also continued, the dejections containing considerable pus.

Subsequently, two more openings appeared below the first. The patient gradually sank, and died on the 11th of September.

Dr. Abbot said it was remarkable how well many of these cases do. He had had six or eight under his care, all of which had recovered. In one case, the abscess had opened in the right iliac region as well as the vagina, and discharged a long time, reducing the patient to the lowest degree of emaciation. In another, pus was discharged with the urine for several months; yet both of these cases were at the present time perfectly well,

Dr. Sinclair said that the mortality in these cases was supposed to be between five and six per cent. He thought it was much larger.

Dr. Curtis said that the patient, also with pelvic cellulitis, in the bed next to the one whose case he had reported, seemed at the time a much sicker woman, but she recovered perfectly, while this patient, who at first promised well, had died.

Dr. Curtis having asked as to the frequency of anteversion of the uterus, Dr. Minot said that, according to his observation, anteversion usually gave rise to much less difficulty than retroversion.

Dr. Abbot said that in a case of anteversion, under his care, the patient was obliged to pass her water every few minutes.

Scarlatina in Old Age.—Dr. Treadwell had seen a case of scarlatina, recently, in an old lady 73 years of age. The characteristic eruption was confined to the thighs and knees. The affection of the throat was well marked.

Dr. Treadwell also said he had removed a fibrous tumor, weighing 14 pounds 12 ounces, from a woman 58 years of age,who had died recently. It had existed for twenty five years, and was partially covered with a calcareous deposit of from two to eight lines in thickness, situated in the fibrous structure, just beneath the investing peritoneum. In several places it had broken down. Its development was in the anterior wall of the uterus.

Sub-involution of the Uterus, with no Uterine Symptoms.—Dr. Minot stated that a woman had recently died under his care, in the Massachusetts General Hospital, of pneumonia, who had given him no history of any previous uterine symptoms. At the autopsy, unmistakable evidences were found of recent inflammation of the Fallopian tubes, and the uterus was a perfect specimen of sub-involution.

Case of False Pregnancy.—Dr. Read related the following case.

The patient was a woman, 38 years of age, and the mother of six children. She had also had two miscarriages. Her last child is 5 years old. She menstruated, for the last time, May 20th. In June, being obliged to do some unusual work, there was a slight flow, resembling the regular catamenial discharge. This came on again in August, and lasted a few days. Since then it has returned every three weeks. About the first of November, she began to increase in size. About three weeks later she quickened, as she supposed; Dr. Read saw her at varying intervals; the abdomen was constantly increasing in size, and she reported that the movements of the child were becoming more active. At the end of nine months Dr. Read was called, the

patient supposing herself to be in labor. He found her in considerable pain, and the movements of the child were reported as very marked. No fœtal heart could be heard, nor could any distinct tumor be made out. No fœtal movements could be detected, even when the patient reported them as most marked. The time having passed by when her pregnancy should have terminated, a uterine sound was passed into the uterus from four to four and a half inches. No discharge followed its withdrawal. No fulness could be detected in any part of the vagina, except in front, where, very high up, some body could be very indistinctly made out. Drs. Putnam and Miller saw her in consultation. By careful manipulation, the abdominal walls were compressed to the side of the spine, by which it was rendered certain that no tumor existed in the abdominal cavity. The patient has already begun to diminish in size, and the supposed fœtal movements are reported as subsiding.

Large Child.—Dr. Minot said he had lately attended a lady, whose child, when dressed, weighed but a trifle less than fifteen pounds.

Abstracts and Intelligence.

Hints on Epilepsy.—The *Medical Times and Gazette*, October 26, 1872, discusses, under this heading, the various theories concerning epilepsy and the remedies suggested for it. A bare enumeration of these theories, from the demoniacal possession of the old Greek and Arabian writers to the cerebral anæmia which is now advocated by Dr. Dickinson, would suffice for an extended article, and the same may be stated concerning the list of drugs and remedial measures advocated by different physicians, in accordance with some pet or fashionable theory, or as the outcome of their own experience. If anything is at all clear in this chaos of conflicting theories and opposing methods of medication, it is that what is called an epileptic fit, or an epileptiform convulsion, is nothing more than a symptom which we must refer to some ultimate common cause, or common condition of nervous matter, either of brain, spinal cord, or of sympathetic ganglia; yet a symptom which may be induced by a great variety of toxic agents, and apparently dissimilar pathological agencies.

Perhaps our earliest experience of convulsions is associated with imperfect aëration of blood, as in half-born or newly-born infants, in whom the lungs are as yet but imperfectly expanded, or in whom there is some mechanical impediment to full and perfect respiration. A little reflection will show us that these are very closely allied to the convulsions which occur in whooping-cough, and sometimes in pneumonia, bronchitis, spasmodic asthma, and to those induced in suffocating animals by throttling, hanging, choking, &c. Closely allied are the convulsions met with in infants suffering from congenital cyanosis, whatever be the malformation upon which the mixture of venous and arterial blood depends. Not improperly we may class with these the convulsions which so commonly occur in those forms of heart disease—such as tricuspid regurgitation or dilatation of the right heart—in which the free circulation of the blood in the lungs is especially hindered. With these, we may class many toxic agents

which cause death either by spasm of the glottis, or by sooner or later impeding the free aëration and circulation of the blood. Such are Prussic acid, chloroform, carbonic acid, and a host of others, together with opium and the numerous narcotics and sedatives which probably act in the same direction, although less obviously and more slowly. It would be rash, however, to build hastily upon this foundation the theory that the cause of epilepsy is to be referred to a want of oxygenation or, in other words, of aëration of the blood; for convulsions and epilepsy are met with in various conditions where this is very slightly or not at all interfered with.

We find convulsions caused by hæmorrhage; it may be from the funis in the infant, or in such cases as obstetricians and surgeons are familiar with in patients further advanced in life. In many of these cases there is no adequate clinical proof of a stasis of the pulmonary circulation, although there may be good reasons for believing in a deficient supply of blood—for the moment at least—to the brain. Shall we class with the latter cause the convulsions which are met with so frequently in dilated conditions of the heart's walls—such as are very common in patients with dilated left ventricle?

To return to our infant once more; we find him apt to be convulsed at the onset, in the course and at the end of almost all acute diseases, notably of the exanthemata. But a burn or scald, the eruption of a fresh tooth, the deposition or disintegration of a tubercular or syphilitic deposit, or the presence of some malignant or rapidly-growing tumor of his cerebrum, cerebellum, or adjacent parts, will excite him in an equally disagreeable manner. There is strong clinical evidence that the older writers were correct in assigning convulsions to the irritation produced by intestinal worms of various kinds. Adults are not exempt from the operation of similar causes. The various mineral poisons, as well as many vegetable ones, whose exact *modus operandi* is still unknown to us, are productive of epilepsy. Animal poisons, also, and (perhaps from the same cause) the effects of extreme heat, of extreme cold, of sections of nerves, and of obstructing or preventing the action of the skin, are equally well known as tending to produce convulsions of an epileptic type; so is the presence in the blood of urea, uric acid, of altered biliary acids, or other hepatic products, and even of the injection into the veins of the blood of another animal. The ill effects of some articles of diet, of mental emotion and moral shock, of over-study or long-continued exertion of the mind, must be remembered. Sexual causes must properly be classed here, unless we consider these due to the anæmia so often induced, or as the result of reflex irritations or local congestions.

The list of exciting or apparent causes is by no means exhausted. Perhaps, for clinical purposes, such a grouping as the following might be of use, even though many exciting causes would thus unavoidably be claimed by several of the groups.

We shall class convulsions and epileptic seizures, as to causation, in such a grouping as—First, due to direct toxic agents (animal, mineral and vegetable poisons, diseased conditions of blood—as met with in the exanthemata, syphilis, gout, and the like—including articles of diet or drinks when taken in excessive quantities, or when themselves impure or deleterious); Second, all causes of imperfect aëration of blood, whether heart or lung disease, or mechanical or other causes

which impede or prevent the access of blood to the lungs, or the due oxygenation of blood in the tissues; Third, losses of blood or other fluids, causing direct general or local anæmia, and local congestions or obstructions which may induce anæmia of nervous centres; Fourth, local causes of irritation, whether acting as direct excitants of nervous and muscular action through or upon nerve centres (worms, teething and tumors, &c.); Fifth, other causes not classified (here mental and moral shocks, perhaps).

Can we classify the remedies, real or assumed, in a similar manner, or in any clinical relation to the above groups? We think we can. The remedies which fall under the first class, and which may be ranked as antidotes, are the following:—If the cause is malaria, quinine, barks of various kinds, arsenic, bromides and the like; and, in a minor degree, opium, mineral acids and many of the sulphates. If the poison is of gout or syphilis, colchicum, veratria, squill, digitalis, and the like for the former, and mercurials, iodide of potassium and its compounds for the latter. If lead or mercury is the cause, then the iodides, and perhaps the sulphates, and potassium-chlorate, with alkaline sulphides, and baths come to our aid.

It is extremely probable that most of the mineral tonics—silver nitrate, zinc salts and the like, as well as the ferruginous remedies which were for so many years fashionable for the relief or cure of epilepsy—owed, or owe, their success to their properties as antiseptics or disinfectants by virtue of their powers of combining with albuminous matters, and of resisting decomposition; or perhaps, like quinine, to their property of limiting the amœboid movements of white blood-corpuscles, or of other animal cells or cellules. Once admit this, and our difficulty in reconciling the apparently opposite qualities of a host of drugs will vanish. Creasote and carbolic acid, ammonia, alcohol, ether and chloroform, will all claim to be ranked in this category.

Under the second class, come change of air, of diet and of occupation; remedies which relieve congestion—as purgatives and bleeding, diuretics and diaphoretics, and such as act upon the nerves of the heart or lungs—notably digitalis, hyoscyamus, the bromides, ether and chloroform; and such means as cod-liver oil, or phosphorus and its compounds.

In the third category, all the means of arresting hæmorrhage, and all the means of making fresh blood or improving the old—hæmatinics and the like—and even rest, are deservedly placed.

The forceps of the dentist, chlorodyne, oil of male fern, and other anthelmintics, sedatives, and whatever may either remove or soothe the local peripheral irritations which disturb the nervous centres, must be placed in the fourth class.

Our fifth class of causes of epilepsy, as it is vague and wide enough to include all the unknown causes, should also include all those wonderful and inert specifics which succeed only in the hands of their own inventors. The tractors of a Perkins, the marvels of mesmerism, hypnotism, and a hundred things as generally useful as cundurango, or uric acid of a boa, may rest in a happy, if not over-clean community.

THE GENERATIVE EXPENDITURE OF MAN.—H. ALLEYNE NICHOLSON, M.D. (*The Edinburgh Medical Journal*, October, 1872), discusses the influence of the generative expenditure upon man as compared with other animals.

It has long been admitted that longevity is, in a general way, opposed by the expenditure of force and matter requisite for the perpetuation of the species. It is also opposed by the loss of force and material caused to the organism by the exertions which it has to make to live as an individual. Longevity is, therefore, opposed by the *generative expenditure* of the organism on the one hand, and by its *personal expenditure* on the other. It is the purpose of the article to show that man stands in a very different position to all other animals, as regards the influence of his generative expenditure upon his period of existence as an individual.

It has been generally assumed that the organism is protected by a kind of balance, which is usually maintained between its generative and its personal expenditure. This law is usually true, even of man; great personal exertion, whether physical or mental, reducing both sexual desire and the power of sexual gratification. To this law, however, there are, occasionally, striking exceptions.

Speaking generally, the losses to the organism caused by re-production come under two heads:—1st, the actual loss of the matter of life involved in the manufacture and discharge of the generative products; and, 2d, the loss of nervous energy involved in the generative act.

In the case of the lowest forms of life, we may presume that the generative expenditure is limited to that comprised under the first of these heads. The loss is often so great as to destroy the organism. In the higher animals, the loss comes under both heads, and there is reason to believe that those under the second are greater in male animals than in female.

Confining our attention to the mammals alone, it is clear that, except in the case of man, there is one great safeguard by which the generative expenditure is kept from rising above a certain level, which we may believe to be the one most consistent with the interests of the species. This safeguard is found in the fact that, in the state of nature, the female will only admit the male at certain limited periods, which are usually very regular in their occurrence and very short in point of duration. It follows that the males are free from all forms of generative expenditure for comparatively long periods. The losses to the females, caused by the maturation of the ova, are also limited in the same way to different periods, usually separated by long intervals of rest.

The most important point, however, is that, taken as a whole, we may regard the generative expenditure of animals solely as a tax upon the organism, rendered requisite by the necessity that the species should be perpetuated.

Comparing men with the other mammals, the first and most striking point of divergence is, that the female admits the male at all periods, except the brief intervals occupied by the process of menstruation; and even this restriction is not universally observed. As the menstrual periods in a healthy woman occupy at most but one week out of four, the generative expenditure of the male is extended, during adult life, over nine months in the year, or three-fourths of his sexually mature existence.

In the second place, as union between the sexes takes place during the period of gestation, it follows that a large amount of the generative expenditure of man, unlike that of any other animal, *has no direct bearing whatever upon the perpetuation of the species.*

Thirdly, this extra generative expenditure is just as important in its bearing upon the individual as if it were directed to the main and primary end of the generative expenditure of man.

Fourthly, the generative expenditure of man, as a monogamous animal, is, as a rule, continued long after the period at which the female ceases to produce ova, and consequently long after the time during which the perpetuation of the species is subserved.

Fifthly, it may be considered as probable that the loss of nervous energy, apart from the actual loss of the generative products, is a more important item in the case of man than in that of any other animal.

Sixthly, so far as the female is concerned, the generative expenditure is not confined to the maturation of the ova, but is also accompanied by an actual loss of blood, as is the case with no other mammals, except a few of the higher quadrumana. Not only is this the case, but the ova are produced at more frequently recurring periods than is the case with the lower animals.

From the above, it is evident that there is an apparent enormous waste of power in the method in which the generative function is carried out in man, the waste being greatest in the male, but existing in the female as well. The male is subjected to a drain of nervous power and of the matter of life which is practically nearly constant, and from which the other male mammals are free.

The generative expenditure of man is so excessive, as compared with that of other mammals, and must be so disadvantageous to the species, if we regard man as a *mere animal*, that it is impossible to believe this state of things could ever have been brought about by the process of natural selection. If man were ever, in his earlier stages, restricted in this respect, as the other mammals are, it is impossible to believe that the change to his present high generative expenditure could have been beneficial to him *as an animal;* and unless it were so beneficial, the change could not have been effected by the agency of natural selection. It is very difficult to see, also, how either natural or sexual selection could account for the loss by the human female—if primarily endowed with it—of the instinct which leads all female mammals, in the wild state, to reject the caresses of the male except during the breeding season.

Taking man as we at present find him, it is quite clear that the generative function plays in his life an essentially different part from that which it plays in the life of any other mammal. Since in all other animals the generative function is wholly connected with the perpetuation of the species, while man is subjected to a generative expenditure which may be characterized as enormously in excess of what is required for this purpose, we must believe that we have, in his case, either an entirely unnecessary waste of power, or that some other end is subserved than that of the continuation of the species. What this end may be is open to question. We cannot but believe that the excessive expenditure is compensated by some advantage to man of at least equivalent value.

Lastly, there is to be considered the probability that man stands alone amongst the mammals as regards the laws which regulate the effect of his generative expenditure upon his longevity.

This is a subject upon which it is impossible, at present, to state anything positive. Taking mammals in their *wild* state, it is certain

that man is subjected to an unusual generative expenditure; and, if no new law supervene, this certainly ought to have some unmistakable effect upon his longevity. Such statistics as we have, however, go to show that the average longevity of the married is greater than that of the celibate. It would seem probable, then, that the effect of man's excessive generative expenditure—as compared with that of mammals—upon his longevity is neutralized by some compensating cause. Abnormal instances drawn from animals, such as monkeys living in confinement, should not be accepted in the determination of this question.

Dr. Nicholson states, in conclusion, that his paper refers solely to man in his normal and healthy state, and in no way refers to those abuses of the sexual functions, which, unfortunately, form a distinctive feature of the human species as compared with the lower animals.

THE STRUCTURE OF THE WHITE BLOOD CORPUSCLE.—The *Lancet*, Feb. 8, 1873, contains a notice of Dr. Richardson's paper upon this subject, reprinted from the Transactions of the American Medical Association. Dr. Richardson advances the opinion that the salivary corpuscles are in reality migrating white blood corpuscles, that have become distended by endosmosis of the salivary fluid. He states that the German histologists, Stricker and Rollet, do not accept as proved the existence of a distinct cell-wall in the white blood-globule; that they consider the laws according to which leucocytes take up fluid as unknown, and that the molecular or "dancing" movement in the salivary corpuscles differs from that seen in colorless blood, pus and other corpuscles, in that those movements cease in the former, but continue in the latter on the addition of a half to a one per cent. solution of common salt. Dr. R. considers the following additions to have been made to what was already known. The white blood-corpuscle is a cell composed of a nucleus (or nuclei) which possesses the power of independent amœboid movement, and is insoluble in water, but capable of slowly imbibing that fluid until swollen to nearly double its normal size. The cell-wall of the corpuscle is a membranous envelope, insoluble in water, even when boiling, too thin to exhibit a double contour, even when under a high magnifying power, but firm enough to restrict the movement of its contained granules within its limits. Some of the phenomena observed would lead to the supposition that this membrane is dotted with minute pores which permit delicate threads of the soft protoplasm it encloses to be extruded. The structure of the particles existing in the protoplasm, and exhibiting dancing motions, when the latter undergoes dilution, is yet undetermined. Contrary to the views of Stricker and Pflüger, no essential difference exists in the effects of salt solutions of various strengths upon the salivary, pus and white blood-corpuscles. From this circumstance, in conjunction with the fact observed that the salivary globules, when acted upon by the denser liquid, contract to the size of the blood-leucocytes, and manifest amœboid movements, Dr. R. concludes that the corpuscles of the saliva are "migrating" white blood-globules, which, "wandering out" into the oral cavity, have become distended by the endosmosis of the rarer fluid in which they float. He thinks it possible that further investigation of the revolving motion sometimes (not always) produced

by a solution of ferrocyanide of potassium in the white blood-corpuscles may throw light upon the curious rotatory movement in the cells of certain plants, which has for a long time been deemed inexplicable, and, by a late writer, attributed to the presence of cilia upon the inner surface of the cell-wall.

RETENTION OF URINE CAUSED BY A SINGLE DISEASED KIDNEY SITUATED IN THE PELVIC CAVITY.—J. W. S. Gouley, M.D. (*The Medical Record*, Oct. 15, 1872). The patient, a male, æt. 24, was admitted to Bellevue Hospital, Sept. 20th, 1870. Three days before, he had pain in the hypogastric region. On the following day, he had retention of urine, for which a catheter was passed, but as no urine flowed it was the opinion of several practitioners who saw him that the bladder had not been reached. In the evening of the second day, the patient being unrelieved, the operation for puncture of the bladder through the rectum was done. Not much urine flowed, and the canula was withdrawn. On the afternoon of the third day, he was removed to the hospital, and came under Dr. Gouley's care. A large bougie and afterwards a No. 10 silver catheter was passed into the bladder, and eight ounces of urine were drawn off; but the hypogastric enlargement did not subside. By rotating the catheter, it came in contact on the right with a resisting object, which seemed to have pushed that wall of the bladder almost to the median line.

The opinion was expressed that the tumor was extra-vesical, and had encroached upon the cavity of the bladder to the extent of giving rise to the urgent symptoms of retention. Peritonitis set in, and the patient died on the third day after admission to the hospital.

The autopsy revealed general peritonitis, most marked in the pelvis, where the organs were glued together. No kidneys were found in the lumbar regions, and no renal arteries were detected in the usual place. Within the pelvis, and rising above the brim, between the sacrum and the bladder, more to the right than to the left, was a tumor, the size of a child's head, filled with fluid. The dissection revealed that it was supplied with blood from the middle sacral artery, which was much enlarged. There was a large single vein emerging from the tumor, and emptying into the ascending cava. A healthy, undistended ureter was traced from the hilus of this single and abnormally placed diseased kidney to the bladder. The bladder presented no morbid appearance other than a few punctate spots of congestion in its mucous membrane, and there was no evidence of puncture at any point. The parietes of the rectum were greatly thickened. Through its anterior wall, two and a half inches from the anus, there was a punctured wound, which was traced into the substance of the kidney and its distended pelvis, the trocar having passed to the right of the bladder without wounding it.

This case is extremely instructive anatomically, physiologically and pathologically. The paper considers it chiefly in its surgical aspects. There was not only retention of urine in the bladder, but also in the pelvis of the kidney, which latter was caused by compression of the short ureter, partly by the tumor itself and partly by the distended bladder. Whenever the patient changed his position to the prone, the tumor would be thrown forward and out of the pelvic cavity, relief of the bladder following, the pressure upon the ureter would be

removed, the urine would again gush into the bladder, and, as this filled up, retention of urine in the renal pelvis would again occur.

The frequent recurrence for months, perhaps for years, of retention of urine in the bladder probably gave rise to this extreme distention of the pelvis of the kidney. Had the patient often assumed the prone position he would doubtless have obtained more relief, and perhaps his kidney would have remained normal, but its situation in the pelvic excavation was never suspected. Anatomists have occasionally found one or both kidneys in this locality; but, so far as Dr. G. knows, this anomalous position of the organ has never caused retention, and the case may, in this respect, be considered unique.

The signs by which such a mal-position of the kidney could be discovered, when, as in this case, there is retention of urine, would be:—1st, pain in the hypogastric and sacral regions, also the perineum and rectum, with a sense of weight, and, perhaps, tenesmus, even after successful catheterism of the bladder; 2d, absence of pain in the lumbar region; 3d, dulness in the hypogastric region; 4th, absence of renal dulness in the lumbar region on careful auscultatory percussion; 5th, no subsidence of the hypogastric tumor after successful evacutive catheterism of the bladder.

The important lesson learned from this case is, that the attempted operation of rectal puncture of the bladder—which gave rise to fatal peritonitis—was resorted to under the impression that the whole trouble was retention of urine in the bladder from obstruction of the urethra, and this conclusion seems to have been arrived at without proper exploration of the canal. Had a bulbous bougie been passed, as the first step of mechanical exploration, the canal would have been found permeable to the largest instruments; puncture of the bladder would not have been entertained for a moment, and possibly a correct diagnosis would have been made.

Dr. Gouley concludes his paper with a consideration of the proper treatment of such a case when a correct diagnosis has been made.

A Case of Atlo-Axial Disease. By J. T. Rothrock. *(Phil. Med. Times*, Oct. 19, 1872.)—The patient was in early manhood. He had suffered during the previous year from trouble of a rheumatic character, and then from an œdematous condition of the left foot. After an incision, a fungous growth arose from the cicatrix, and persisted for some months. These antecedents show how much predisposed, by a lowered vitality, the patient was to a development of any disease which diathesis or accident might call into open manifestation.

At this juncture, his troubles culminated in one still more aggravated. His neck became stiff, and so much swollen that the hollow existing in the occipito-cervical region disappeared. For this he went through a heroic course of cupping, blistering, &c., under the idea that the trouble was merely local. The symptoms continued for several months.

Oct. 21, 1870 —When first seen by Dr. R., the most urgent symptoms were those of tonsillitis; these were soon relieved.

Oct. 31.—He was prostrated with a fearful increase of his previous sufferings. The tonsils were enormously swollen, the half arches œdematous to the highest degree, and the uvula, enlarged and tumefied,

completely blocked up the entrance to the pharynx. The posterior nares were so closed that it was only possible by supreme efforts to breathe through them, and then only after lumps of hardened mucus had been expelled. The tip of the finger, pressed against the back of the pharynx, received the impression of touching a sodden mass. The œsophagus was nearly closed, and, occasionally, spasm of the glottis jeopardized the life of the patient. To crown all this suffering, agonizing pain would shoot up the back of the neck and head, which the patient compared to a blow received on the back of the head from a sledge-hammer—a symptom which Dr. R. came afterwards to regard as of diagnostic value. When in the erect position, the hands were applied one to either side of the occipito-cervical region, to support the head and to relieve its inflamed base.

It became necessary, in making the diagnosis, to eliminate pharyngitis, the previous rheumatic attack, retro-pharyngeal abscess, any specific disorder and erysipelas of the mucous surfaces.

The most probable diagnosis was that there was a breaking down of the bony structures. There was no evidence of pus pointing in a visible location, external or internal, nor did it appear to be gravitating down along the spinal column.

The temptation at times was strong to make a free incision just below the mastoid process, being aware that pus forming among the deeper structures of the neck would, for a long time, give no external indication of pointing. The statement of Chelius, that there is not usually any external diseased indication in the neck when its bones are diseased, except that the patient cannot bear the least pressure, served to confirm the diagnosis.

Treatment of a tonic and supporting character was determined upon. It consisted of rest in bed, with the head supported and buried in a bran pillow, which acted as a splint, and which, when warmed, served greatly to mitigate the pain; generous diet and tonics, ferri vinum amar., tr. nucis vom., and Fowler's solution in combination, alternated with cod-liver oil and iodide of iron; and they were pushed to the full extent of the patient's tolerance. In a few days, decided improvement was evident.

Dec. 3.—Two small protuberances were noticed on the back of the pharynx; they were similar to the fungoid mass one finds over the fistulous openings to carious bone elsewhere. It became certain that the case was one of vertebral caries. Mild counter-irritation was maintained over the back of the neck.

Dec. 12.—Two small pieces of bone escaped from the openings beneath the fungoid granulations in the posterior wall of the pharynx. One was secured, the other was lost. The cause of all this intense, long-continued suffering seemed ridiculously small compared with the effects produced. The piece of bone secured was not more than one-sixteenth of an inch thick, and less than one-quarter of an inch square surface. The piece lost was, in all probability, even smaller. It was believed at the time, and afterwards ascertained, to be the small process in front of the atlas called the tubercle. Nearly a year later (Sept. 5, 1871), after a period of comparative quiet, the neck again began to swell and the pharynx to become tumefied. A new portion of dead bone was secured, which was the polished surface of the atlas against which the anterior portion of the odontoid process rubs. Sept. 13th, another small piece was obtained.

At present, the patient seems to enjoy fair health. There is some swelling of the back of the neck, some huskiness of the voice, depending on pharyngeal changes, and some stiffness of the neck. At present, it may be best to hazard no opinion as to the permanency of the cure, as this depends on so many contingencies.

Vaccinal Syphilis.—Great commotion has been recently raised in the English medical societies by Mr. Hutchinson, who reports several cases, thought by himself and others to be undoubted instances of syphilis induced by vaccination; but, after a somewhat careful reading, we must say, in the words of the old Scottish verdict, "not proven." To settle such a grave question, there surely ought to be required more than what the *Lancet* calls "the very small number of facts which so keen a clinical investigator as Mr. Hutchinson, with an enormous field of observation at his command, has been able to detect." The following extract, also from the *Lancet*, ought to be well considered before hastily adopting the conclusions of alarmists.

"We think, then, that the influence of the whole group of cases related by Mr. Hutchinson must be decidedly in favor of the *possibility* of communication of syphilis by the inoculation either of the blood of a syphilitic vaccinifer, or of the serum which oozes into the vesicle, *if the vaccinator be unwise enough* (these and the following italics are not in the *Lancet)* to continue to take fluid after the first drop of lymph—the true product of vaccination—has been exhausted. *Not one particle of evidence has been adduced to show that the true lymph can be affected with syphilis;* and, as our readers are doubtless aware, the evidence against such a possibility is enormously strong. And even the communication by blood, or by serum obtained after first emptying the vaccine vesicle, though it may now be admitted as a possibility, cannot for a moment be regarded as more than a very occasional result of these accidents. We are very glad to observe that Mr. Henry Lee had the sense and candor to point this out forcibly on Tuesday. He observed that, supposing constitutional syphilis to be communicable by blood or serum, it was plain that this was no necessary process, but only happened when the constitution of the person from whom the inoculation was received chanced to be in some peculiar state of ferment, which received the dormant activity of the syphilitic poison. This must certainly be true, or syphilis would be far more widely diffused in the world than it actually is. By these arguments it is evident that we reduce to a minimum the chances of vaccinal communication of syphilis; for the latter event *can only take place* when all the following conditions are simultaneously present:—(1) a syphilitic vaccinifer; (2) an active condition of the syphilitic element of the vaccinifer's blood; but, at the same time (3), an absence of such external symptoms of syphilis as would deter any commonly upright surgeon from using the subject of them as a vaccinifer; (4) the gross imprudence committed, of employing either blood or the serum obtained after the emptying of the vesicle. It is an absolute impossibility that all these conditions can be more than very rarely fulfilled, and we therefore think that Mr. Hutchinson is gravely to blame for the tone of his remarks in his concluding speech at the meeting. Those remarks, when translated by the imperfect understanding of the non-

medical public, will convey a most erroneous impression as to the prevalence of vaccino-syphilis, and will aggravate in a perfectly unwarrantable manner the terrors of the laity."

On the use of Muriatic Acid in Fevers. By Dr. A. P. Buchan, Senior Physician to the Westminster Hospital.*—The use of muriatic acid in fever was first introduced into the Westminster Hospital on the suggestion of Mr. Sutherland, a respectable apothecary, residing in Westminster, in consequence of his having witnessed its efficacy in low fevers, occurring in the parish workhouse, of which he formerly had charge.

It is, however, no new medicine, although, like many other valuable remedies, it has been alternately in vogue and forgotten. The introduction of a new medical theory often expels a valuable article from the materia medica; a circumstance much to be regretted, as, in my opinion, a remedy, the utility of which, in any one complaint, is sanctioned by experience, is of more real importance to the welfare of mankind than all the medical theories that have been broached, taken together.

The earliest account that I have met with of the muriatic acid being used as a remedy is contained in a scarce pamphlet now lying before me, published in 1667, and entitled, "Alexicacus' Spirit of Salt of the World, which, vulgarly prepared, is called The Spirit of Salt, or The Transcendant Virtue of the True Spirit of Salt, long looked for, and now philosophically prepared and purified, &c. By Constantine Rhodonaces, Grecian, of the Isle of Chios, and one of his Majestie's Chymists; who is the sole Author and Inventor of this Spirit." The author is, of course, full of the praises of his nostrum, the preparation of which, in the then state of chemistry, was probably known to few. It is, however, a fact, that during the great plague in London, he was a most successful practitioner, and is said to have accumulated a large fortune. To use his own words, "The Author, by using his spirit in drinks, broths and sauces (staying all the time of the pestilence in London), kept, by God's grace, not only himself and family, but also many others, during all the contagion of the plague." He also observes that "it makes men agile, merry and jocund, procuring moderate sweating and gentle sleep."

Outwardly used, "it answers well to cleanse foul ulcers, and render the skin clear." The dose he recommends is much the same as is used at present, from sixty to eighty drops in twenty-four hours.

From this period, as a remedy for fever, it seems to have fallen into disuse, till it was revived in a pamphlet published by Sir W. Fordyce, in 1790, who strongly recommends it in all diseases having a tendency to putridity, as typhus fever, malignant smallpox, measles and sore throat; and is sanguine in his hopes of its proving an effectual remedy for the plague itself.

Since that time, a medicine was introduced into the military hospitals of Prussia, as a secret, for the cure of fever; after a fair trial, and

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* Messrs. Editors,—Enclosed I send you a copy of an article on the use of muriatic acid in fevers, which was written over half a century ago. It seems to me to be worth reproducing, and if you are of the same opinion, you will please give it a place in the Journal. Yours &c., W. H. Campbell, M.D.

Boston Highlands, Dec. 9, 1872.

approbation of the army physicians, the secret was purchased by the King, and it turned out to be a diluted mixture of muriatic acid.

In a collection of medical tracts, published at Calcutta, about twenty years ago, there is a paper containing an account of a ship's crew being completely preserved from scurvy during a three years' voyage, by the use of muriatic acid, and as soon as the stock was exhausted, the complaint appeared with great virulence.

I remember, some years ago, being called to see a patient in the neighborhood of Drury Lane, whom I found lying insensible in bed with a low fever, and covered with petechiæ (the spotted fever, as it was termed). The case appeared to me desperate, but I desired the attendants to put a drachm of muriatic acid into a pot of porter, and offer it to the patient as a beverage as often as he was inclined to drink; in a few days, I was informed he was better, and, to my surprise, he ultimately recovered.

Percy Street, London, Nov. 13, 1815.

The *Med. Times and Gazette*, Nov. 30, 1872, makes mention of Rokitansky and his work as follows:—

"While in France or Belgium autopsies are the exception, in Vienna and almost anywhere in Germany they are the rule. In 1870, of 2,689 patients dying in the hospital, 1,485 were submitted to *post-mortem* examination, besides a considerable number examined for medico-legal purposes.

"Rokitansky set out with the principle that the autopsy should never be performed by the person who has treated the patient; who can never entirely free himself from preconceived views. All those who die in the General Hospital, are, therefore, brought to the Institute, of which he is the Director, and he and his assistants examine them without even being aware of the diagnosis that has been made or the treatment that has been pursued. This Institute is situated within the 'great medical city' termed the General Hospital, in one of the courts of which it appears as a handsome building, two stories high. It is known as the Leichenhof, and bears on its façade the inscription '*Indagandis Sedibus et Causis Morborum.*' Its ground-floor opens into a large court, surrounded by a railing, where the families of the deceased assemble to recognize them and accompany them to the cemetery. The corpse, which has been examined the day before, has been reclothed and deposited in an open coffin, surrounded by flowers, and the religious ceremonies are performed in a chapel attached to the Leichenhof. These attentions much contribute to attenuate the prejudices felt by so many against autopsies. The dead are brought from the wards and lie each on a bed, stripped of clothing, awaiting the autopsy, and having attached to a toe a small leaden plate inscribed with the number which has been entered on the register, so that all doubt as to identity is prevented. . . . There are two rooms wherein the autopsies are performed—one for the medico-legal autopsies, to which students are not admitted; and the other for the clinical autopsies, wherein is a large amphitheatre for their accommodation. The rest of the floor is occupied by rooms for the assistants for the pathological lectures, as also work-rooms for the clinical professors containing preparations, tests, microscopes, &c. On the second floor

is situated the splendid museum, for which Prof. Rokitansky's 65,000 autopsies have supplied ample materials; there is here, also, a lecture-room for the course of pathological anatomy, and the laboratory of Prof. Stricker.

"Every morning, the autopsies are practised with rapidity, and yet with care, by the professor and his assistants; and not unfrequently the clinical professors with their pupils are present at the examination of the bodies of their patients. They are here, however, simply as spectators. Of course, the diagnosis is almost always confirmed by the autopsy; and where this is not the case, the professor, returning to his clinical wards, explains to his pupils the cause of the error that has taken place."

Correspondence.

Diabetes Mellitus.

Messrs. Editors,—Diabetes mellitus is not by any means a common disease; and it is fortunate for the community that such is the case, for the disease is notoriously intractable—death being the rule and recovery the exception.

The rarity of the complaint must be my excuse for publishing the notes of a case still under treatment; my chief object being to draw the attention of the profession to a cause of diabetes which, so far as I am aware, has been overlooked, namely, *uterine disease*.

Mrs. S. consulted me for the first time in February, 1872. Age 32; had been married eight years; husband living; has one child, five years of age; never had a miscarriage. Since the birth of her child, menstruation has always been painful; she complains of pain in the occiput and the vertex; severe backache; has almost constant leucorrhœa, the discharge occasionally tinged with blood; appetite good, but troubled constantly with thirst; insomnia; passes a great deal of clear urine, during night as well as day; saliva very acid. Next day, I examined a specimen of *urina sanguinis*, and found it slightly acid, clear; no deposit on standing twelve hours; sp. gr. 1054. The abundant presence of sugar was shown by Trommer's, Moore's and the fermentation tests; also by evaporating an unmeasured quantity on a water bath, which left a large quantity of amorphous grape sugar.

The patient was put upon an animal diet, including milk, with marked benefit. The quantity of urine decreased to about four pints in the twenty-four hours; the thirst abated; and she did not require to get up at night to pass water so frequently as before. March 5th, a specimen of the morning urine was examined. It appeared clear, with a slight deposit of urates on standing. Sp. gr. 1040. Six ounces, avoirdupois, were evaporated over a water-bath, and 198 grains, troy, of sugar remained.

Mrs. S. agreed to an examination of the womb, which revealed granular inflammation of the os and cervix uteri, with endometritis. The large sound passed three and one fourth inches easily. It was then covered with a pledget of fine cotton batting, passed to the fundus, and was withdrawn covered with pus and blood. The uterine cavity was repeatedly and carefully cleansed with moist cotton, strong carbolic acid (equal parts crystals and glycerine) applied, and the vagina syringed with a weak solution of permanganate of potassa. A similar treatment was continued weekly till May; iodine was occasionally substituted for the carbolic acid, and, on one occasion, a saturated solution of chromic acid. Vaginal douches, consisting of a gallon or more of hot water (90° to 95°), were administered at first every night, and latterly three times a week.

The urine was examined weekly. On May 8th, the urine had decreased in quantity to two pints in twenty-four hours; color natural; acid to litmus paper; sp. gr. 1020. No sugar could be detected, either by Moore's or Trommer's test. Her unnatural thirst has gone. She did not require to get up at night to pass water. All the uterine symptoms had disappeared; and a speculum examination demonstrated a healthy state of the parts. During the uterine treatment, the diet rules had been considerably relaxed.

Mrs. S. went to the country in June, resuming her ordinary diet, and I did not see her again till October. An examination of the urine, October 2d, showed that the sugar had returned, accompanied by thirst, though not as bad as before. Sp. gr. 1038; one ounce contained fifty-two grains of sugar.

The patient's diet was again partially restricted. Lactic acid was prescribed for internal use, with buttermilk. In December, the amount of sugar had materialy decreased, all the symptoms showing a corresponding improvement.

The question arises, To what extent does the diabetes, in this case, depend upon uterine disease? It is true that dietary treatment has been, to some extent, associated with the local remedies; but, while the most stringent dietary rules, alone, failed to cure, local uterine applications, combined with moderate restrictions as to food, entirely arrested the disease for a time. It is also true that the diabetes returned again, the uterine trouble also coming back, although in neither case to the same extent. If, as many physiologists believe, diabetes is caused by some continued disturbance of the nervous system—ganglionic or cerebro-spinal—what more likely to do so, in a woman, than irritation of the nerves belonging to the womb?

This case is respectfully submitted to the consideration of my fellow-practitioners, in the hope that more light may be thrown on a confessedly obscure subject.

Stoneham, Mass. W. SYMINGTON BROWN, M.D.

A CASE OF LACERATION OF THE RECTUM NEAR THE INTERNAL SPHINCTER.

MESSRS. EDITORS,—A French boy, about five years old, who had diarrhœa, got up in the night when his parents were asleep, and having a prolapsus of the rectum, and thinking it was something that ought to be got rid of, took a splinter of wood to remove it with, and produced a laceration of the gut through all its coats, something more than two fingers in breadth, and so near the sphincter that the lower fragment had returned to its natural position spontaneously. The laceration was transverse. There had been considerable bleeding from the hæmorrhoidal vessels, and the gut was projecting like a hernia through the artificial opening.

I could think of no authority that I could be guided by in treating the case, and there was no one near whom I could consult. I thought it would be extremely difficult to approximate the lacerated edges by suture; so, after cleansing the parts and removing the splinters, which were sticking in the wound, I returned the bowel, and gave my patient opium every two hours, to keep the bowels quiet, so as to have no discharges from them, or even any accumulation in the rectum; hoping to get either a union of the parts, or an inflammatory adhesion to surrounding parts, and avoid perineal abscess. I avoided such articles of diet as contain any residuum, and kept him on mucilage of slippery elm and gum Arabic, raw eggs and gruel. I treated the case in that way for two weeks. There was no discharge from the bowels during that time, though he had had diarrhœa previously, nor was there any fæcal accumulation to be felt in the rectum at the end of that time. I then, after suspending the opium a few hours, ordered a dose of castor oil, which operated without any difficulty. After that, he ate as usual. He has had no trouble since. The case occurred a year ago last fall.

Beebe Plain, P. Q., Dec. 31, 1872. N. CHENEY.

Medical Miscellany.

APPOINTMENT.—Dr. W. P. Bolles has been elected Pathologist at the City Hospital, in place of Dr. S. G. Webber, resigned.

THE traffic in American medical diplomas, we regret to say, still continues; one unfortunate victim has confided his experience to the *British Medical Journal*, having parted with £42 for useless parchment. Is it really impossible to prevent such swindling operations?

AN arrangement has been at length definitely made, by which the lady medical students may now attend the wards of the Edinburgh Royal Infirmary on Sunday with Dr. Heron Watson.—*Brit. Med. Journal.*

MASSACHUSETTS GENERAL HOSPITAL.—The number of patients admitted to this institution during the year 1872 was 1547—1019 males, 528 females. The whole number treated was 1701, of which 1289 were free; 259 were accidents. 1271 were discharged well or relieved, 160 not relieved or not treated, and 120 died, a percentage of 7·74. The average number in the house was 135—25 paying, 110 free.

641 were residents of Boston, and 802 of other parts of Massachusetts. 665 were Americans, and 882 foreigners.

268 were refused admission. 11,878 were treated as out-patients; 3057 of these were dental cases, and 1006 had *teeth filled.*

Officers of the Institution, 1873.—Edward Wigglesworth, President, Nathaniel Thayer, Vice President. J. Thomas Stevenson, Treasurer. Thomas B. Hall, Secretary.

Trustees.—Henry B. Rogers, James M. Beebe, E. Francis Bowditch, Charles R. Codman, Charles H. Dalton, Edmund Dwight, George E. Ellis,* Samuel Eliot, George S. Hale, Samuel G. Howe,* Henry P. Kidder,* Samuel D. Warren.*

Board of Consultation.—John Jeffries, M.D., Edward Reynolds, M.D., John B. S. Jackson, M.D., Winslow Lewis, M.D., H. I. Bowditch, M.D., D. H. Storer, M.D., Charles E. Ware, M.D., C. E. Brown-Séquard, M.D., John E. Tyler, M.D.

Officers of the Hospital.—Norton Folsom, M.D., Resident Physician. George C. Shattuck, M.D., Francis Minot, M.D., Calvin Ellis, M.D., Samuel L. Abbot, M.D., H. K. Oliver, Jr., M.D., Benj. S. Shaw, M.D., Visiting Physicians. Henry J. Bigelow, M.D., Henry G. Clark, M.D., Samuel Cabot, M.D., George H. Gay, M.D., Richard M. Hodges, M.D., Algernon Coolidge, M.D., Visiting Surgeons. David H. Hayden, M.D., Wm. L. Richardson, M.D., G. G. Tarbell, M.D., E. N. Whittier, M.D., Physicians to Out-patients. Chas. B. Porter, M.D., J. Collins Warren, M.D., Henry H. A. Beach, M.D., Surgeons to Out-patients. James C. White, M.D., Physician to Out-patients with Diseases of the Skin. James J. Putnam, M.D., Physician to Out-patients with Diseases of the Nervous System. Frederick I. Knight, M.D., Physician to Out-patients with Diseases of the Throat. Reginald H. Fitz, M.D., Microscopist and Curator of the Pathological Cabinet. Henry P. Quincy, M.D., Artist. Charles Wilson, D.M.D., Dentist. Thos. M. Rotch, Wm. E. Moseley, Medical House-pupils. Edw. W. Emerson, Edw. R. Buckingham, J. Foster Bush, Wm. E. Stedman, Surgical House-pupils. Miss C. L. Sturtevant, Matron. Chas. A. Clough, Apothecary.

Officers of the McLean Asylum.—George F. Jelly, M.D., Superintendent. Chas. F. Folsom, M.D., Ferdinand A. Stillings, M.D., Assistant Physicians and Apothecaries. Walter J. Norfolk, Medical Student and Apothecary. George W. Whittle Steward. Mrs. Abby M. Whittle, Matron. Elbridge S. Upham, Miss Lucia E. Woodward, Supervisors.

* Appointed by the Governor of the Commonwealth.

STEVENS TRIENNIAL PRIZE.—The Stevens Triennial Prize for 1873 has been awarded to an Essay on *The Sphygmograph; its Physiological and Pathological Indications*; by Edgar Holden, M.D., of Newark, New Jersey.

The questions proposed for the next prize (1876) are as follows:—

I. *The History of Epidemic Diseases in the United States from* 1860 *to* 1870; statements as to localities, dates, extent of prevalence and mortality, to be authenticated by appropriate references. The question of *treatment* is not to form a part of the above subject.

II. *The Use of the Spectroscope in its Application to Scientific and Practical Medicine.*

The competing essays on either of the above subjects must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1876. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced at the Annual Commencement of the College, in March, 1876.

This prize, which will amount to two hundred dollars, is open for universal competition.

By order of the Prize Committee, JOHN C. DALTON, M.D.

THE HASTINGS GOLD MEDAL, value twenty guineas, is offered annually by the British Medical Association as a prize for an essay on some subject connected with medical science. The subject selected for competition for 1873 is "On the Pathology and Treatment of Ovarian Diseases;" and the award will be made at the annual meeting of the Association in that year. Essays must not be in the handwriting of the author. Each essay, which must not exceed in length twenty-four pages of the *British Medical Journal*, must be sent, under cover, with a sealed envelope bearing the motto of the essay and the name and address of the author, to the General Secretary of the Association, 37 Great Queen Street, on or before the 1st of May, 1873. The successful essay will be the property of the Association, and will be published in the *British Medical Journal.*

NOTES AND QUERIES.

Is there any thing, or procedure, that will prevent scars after smallpox—or can such scars be diminished by art? *Truth*, not belief or assumption, wanted. INQUIRER.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending March* 8, 1873.

Boston, 146—Charlestown, 16—Worcester, 21—Lowell, 18—Milford, 4—Chelsea, 5—Cambridge, 25—Salem, 13—Lawrence, 10—Springfield, 5—Lynn, 14—Fitchburg, 5—Newburyport, 5—Somerville, 6—Fall River, 32—Haverhill, 5—Holyoke, 4. Total, 334.

Prevalent Diseases.—Consumption, 60—pneumonia, 31—scarlet fever, 14—croup and diphtheria, 11.

The deaths from smallpox were as follows:—In Boston five, Charlestown one, and Chelsea one. Of the deaths from scarlet fever, eleven were in Boston.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, March 15th, 174. Males, 92; females, 82. Accident, 3—abscess, 1—apoplexy, 1—inflammation of the bowels, 2—disease of the bladder, 1—bronchitis, 8—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 9—cancer, 3—cerebro-spinal meningitis, 10—cyanosis, 1—consumption, 22—convulsions, 6—croup, 5—debility, 6—dropsy, 2—dropsy of the brain, 3—diphtheria, 1—epilepsy, 3—erysipelas, 1—scarlet fever, 9—typhoid fever, 4—disease of heart, 6—hernia, 1—hæmorrhage, 1—jaundice, 2—disease of the kidneys, 1—congestion of the lungs, 5—inflammation of the lungs, 13—marasmus, 7—neuralgia, 1—old age, 5—paralysis, 2—puerperal disease, 3—premature birth, 2—rheumatism, 2—scalded, 1—scrofula, 1—smallpox, 4—stricture of urethra, 1—suicide, 1—syphilis, 2—tumor, 2—teething, 2—whooping cough, 2—unknown, 4.

Under 5 years of age, 68—between 5 and 20 years, 25—between 20 and 40 years, 41—between 40 and 60 years, 24—over 60 years, 16. Born in the United States, 124—Ireland, 35—other places, 15.